

LYNCHBURG CITY COUNCIL

Agenda Item Summary

MEETING DATE: **May 27, 2003**

AGENDA ITEM NO.: 2

CONSENT:

REGULAR: **X**

CLOSED SESSION:

(Confidential)

ACTION: **X**

INFORMATION:

ITEM TITLE: **West Nile Virus Control Plan**

RECOMMENDATION: Approve the proposed West Nile Virus Control Plan for the City and funding to implement the surveillance and larvicide program in FY 2004.

SUMMARY:

City of Lynchburg staff, in partnership with the Lynchburg Health Department and the Lynchburg Cooperative Extension Office, created the attached West Nile Virus Control Plan for City Council review, comment and approval. See the attached background memo for additional information.

PRIOR ACTION(S): None

FISCAL IMPACT:

We are requesting \$12,134 to implement the surveillance and larvicide programs outlined in the West Nile Virus Control Plan. The breakdown of the proposed expenditures is shown in the proposed plan. It is proposed that the funds come from the FY 2003 Reserve for Contingencies since the program needs to be implemented immediately for maximum effect.

CONTACT(S):

Gaynelle Hart, Director of Buildings and Grounds 847- 1386 extension 158.
Bruce McNabb, 847-1823

ATTACHMENT(S):

Resolution
Background Memo
West Nile Virus Control Plan

REVIEWED BY: lkp

RESOLUTION:

BE IT RESOLVED That \$12,134 is appropriated from the Reserve for Contingencies for implementation of the surveillance and larvicide program outlined in the West Nile Virus Control Plan.

Introduced:

Adopted:

Certified:

Clerk of Council

100L

To: The Honorable City Council

From: Gaynelle Hart, Director of Buildings and Grounds

Date: May 12, 2003

Re: West Nile Virus Control Plan Background Information

City of Lynchburg staff, in partnership with the Lynchburg Health Department and the Lynchburg Cooperative Extension Office, offer this proposed West Nile Virus Control Plan for your review, comment and approval. This is one approach to a programmed action plan to the probability of West Nile virus in the City this year.

The proposed action plan is a conservative approach in terms of chemical control (spraying) of mosquitoes and is driven by risk levels and not citizen requests for mosquito control. Cities and counties faced with the same issue vary widely in their plans for response to the probability of West Nile virus. Some communities only offer larval control at all risk levels; some offer an adult mosquito control program (spraying) driven by citizen requests and some offer an areawide spraying program targeting adult mosquito control.

The Center of Disease Control and Prevention has awarded states and cities nationwide 6.3 million dollars of grant funding to combat West Nile virus of which \$92,000 was awarded to Virginia. Although we will seek grant funding, it is unlikely grant funding will be available this year for our area.

The City of Lynchburg already has maintenance programs and an ordinance in place that will assist in combating West Nile virus this mosquito-breeding season. These include enforcement of Chapter 26-2 of the City Nuisance Ordinance, maintenance of ditches and drainage areas in City rights of way, maintenance of City owned detention ponds and the Respond software to record and assign citizen requests for service. In addition to these programs, we recommend beginning a surveillance program, a larvicide program and a public education program.

We are requesting funding of \$12,134 for fiscal year 2004 to begin a surveillance and larvicide program for this mosquito season. The funding will support a wage employee to work approximately 20 hours a week doing surveillance and larvicide control and provide supplies for the program. The Lynchburg Health Department has agreed to allow us to use their equipment and lab to do the analysis. It is important to begin the surveillance program soon so we can analyze the data and determine an appropriate response based on the data.

We do not know the actual risk level we will reach in the City this year nor public reaction to that level. Depending on the actual risk level we may need to request additional funding at a later date.

Thank you for considering this matter.

Draft City of Lynchburg West Nile Virus Control Plan

The Virginia Department of Health provides the following information in the pamphlet titled West Nile Virus- Protect Yourself and Your Family.

“West Nile virus is a mosquito- born virus that can cause encephalitis or meningitis in humans and other animals. West Nile virus is spread to humans, birds and other animals through an infected mosquito that is carrying the virus. A mosquito becomes infected by biting a bird that is carrying the virus. West Nile virus is not spread from human to human and no evidence indicates that the virus can be spread from birds to humans.

In an area where West Nile virus has been detected only a small portion of the mosquitoes are likely to be infected. Most people bitten by an infected mosquito do not become sick. “

General Assumptions

In 2002, in the Lynchburg area, we had thirty-three dead birds and one mosquito pool test positive for West Nile Virus. We expect to have more dead birds test positive this year. Trends show that the virus becomes more serious each year after it becomes established. In the February 2003 publication of Virginia Town & City, the magazine of the Virginia Municipal League, Dr. Michael Welch of the Department of Public Health in the City of Richmond states, “Waiting until the threat becomes real not only reduces the options a locality has, it also drives the price of those options up while increasing the risk of negative public perception. He also stressed, “The bottom line is, localities that had West Nile virus positive birds last season should prepare for a human case this year.”

In preparation for further detection of the West Nile virus in our area, City staff has developed a programmed action plan to respond to these possible events.

Goals

1. Provide public education/ communication to citizens regarding West Nile virus, the City’s Action Plan and how they can protect themselves and their families from the virus.
2. Assist the Lynchburg Health Department in reducing health risks to citizens.
3. Control mosquito populations on public property in a manner that is safe for citizens, pets and the environment.
4. Protect City employees, to the extent possible, from West Nile virus.
5. Coordinate the efforts of various State and Local agencies in the appropriate response to West Nile virus in bird and mosquito populations.

Definitions

Container Breeding Habitat: certain species of mosquitoes only breed in containers such as bird baths, tires, or barrels. This mosquito species is one of the species more likely to carry the West Nile virus.

Epizootic Activity: a disease that affects many animals of one kind at the same time.

Integrated Mosquito Control: a pest management program that combines all appropriate pest management techniques in a single plan. The plan depends on scientific research to determine pest population levels and habitat. Some of the techniques include mechanical control, biological control and chemical control. A control program only reduces mosquito population it does not eradicate it.

Larvae: the immature, wingless form that hatches from an egg of many insects.

Mosquito Pool: pools consist of 25 to 50 individual mosquitoes of the same species collected from the same location and on the same date.

Mosquito Surveillance: an observation, collection and testing program that provides an estimate of larvae and adult mosquito abundance/ distribution, identification of species as well as detection of the West Nile virus in mosquitoes.

Source Reduction: elimination of mosquito breeding habitats where such methods are feasible.

Standing Water Ordinance: a ordinance enforced by some cities that imposes penalties to citizens/businesses for allowing mosquito breeding habitat to remain uncorrected or untreated on private property.

West Nile Virus Task Force: a group consisting of members from the City of Lynchburg, the Virginia Department of Health, the Lynchburg Cooperative Extension Office and concerned citizens that would advise the City of Lynchburg on the appropriate response to confirmed reports of West Nile virus.

General Information

Under the Code of Virginia, mosquito control is the responsibility of the local government. The Commonwealth of Virginia has guidelines for a response plan to West Nile virus that can be found in the Virginia West Nile Virus Surveillance and Response Plan. The format for this plan is based on the Commonwealth of Virginia plan and uses the risk level approach to planning and response to West Nile virus.

There are several components in an effective West Nile Virus Control Plan including **surveillance, mosquito control methods, personal and home protection and public education/communication**.

Surveillance is a key component to effective integrated mosquito control program that includes surveillance activities for humans, birds, mammals and mosquitoes. The Commonwealth's plan includes guidelines for surveillance of birds, mammals and humans and is beyond the scope of this plan. In mosquito surveillance, mosquitoes and larvae are collected, tested and identified by species. Different species of mosquitoes behave differently and live in different habitats. Not all mosquitoes pose a health risk. Surveillance will also provide an estimate of larvae and adult mosquito abundance/ distribution. This data is used to determine and evaluate control methods and serves as a guide for emergency control operations.

One of most effective methods of reducing mosquito populations is through source reduction: elimination of standing water in bird baths, ditches, old tires, etc. Currently, the Department of Community Planning and Development is investigating citizen complaints regarding stagnate water on private property as provided by Chapter 26-2 of the City's Nuisance Ordinance. The Streets Division of the Department of Public Works has a crew dedicated to responding to ditch and drainage issues. That crew also provides routine maintenance to problem areas. The Utilities Division and the Buildings and Grounds Division of the Department of Public Works currently monitor and maintain City owned detention ponds. When source reduction is not practical, larvae and adult **mosquito control** is necessary.

A **public education/ communication effort** is very helpful. Citizens can play an active role in assisting the City in reduction of mosquito populations by eliminating mosquito-breeding habitats on private property. It is also important to inform the citizens of the City's action plan and what they can do to protect themselves.

Role and Responsibilities

The development of this plan is a cooperative effort among the State agencies and City Departments listed below. Each of these organizations will play an important role in implementation and success of the West Nile Virus Plan.

Lynchburg Health Department

- Provide public education.
- Provide testing of dead birds and notify the City of positive birds.
- Provide other surveillance as needed if funding is available and notify the City of confirmed positive cases of West Nile virus.
- Assist City of Lynchburg in development of West Nile Virus Control Plan.

City of Lynchburg Department of Public Works

Division of Buildings and Grounds

- Lead the development of the City's West Nile Virus Control Plan.
- Lead the implementation of West Nile Virus Control Plan.
- Monitor and maintain non- CSO detention ponds.
- Implement source reduction on other City property.
- Respond to citizen complaints on a case-by-case basis.

Division of Streets

- Continue to implement source reduction in City Right of Ways.
- Respond to citizen complaints on a case-by-case basis.

Division of Utilities

- Monitor and maintain CSO detention ponds.
- Monitor and maintain the City's storm sewer system.
- Respond to citizen complaints on a case-by-case basis.

Division of Engineering

- Assist surveillance activities by providing GIS support.

City of Lynchburg Department of Communications and Marketing

- Provide public education regarding the City of Lynchburg West Nile Virus Plan.
- Provide public information to citizens regarding source reduction and encourage citizens to participate in source reduction of mosquito breeding habitat.
- Provide public information/education regarding Nuisance Ordinance Chapter 26-2.
- Assist Department of Public Works with notifying citizens of pesticide applications, if necessary.
- Assist Department of Public Works with citizen requests/concerns through Respond software.

City of Lynchburg Department of Community Planning and Development

- Enforce Chapter 26 – 2 of Nuisance Ordinance.
- Notify private detention pond owners of maintenance required to prevent creation of a mosquito breeding habitat.
- Assist in developing Mosquito Control Ordinance if needed.
- Enforce Mosquito Control Ordinance if needed.

Lynchburg Cooperative Extension Office

Provide public education to citizens regarding mosquito control.

Assist City of Lynchburg in developing West Nile Virus Control Plan.

West Nile Virus Task Force

Advise City of Lynchburg on implementation of West Nile Virus Control Plan.

Risk Levels

The risk levels described below are very similar to the risk levels described in the Commonwealth's plan.

Level Ia – Winter weather; no adult mosquito activity present.

Level Ib – Mosquito breeding season, adult mosquito activity present, no current evidence of West Nile Virus (WNV) epizootic activity.

Level II - Mosquito larvae and adults present, initial evidence of WNV epizootic activity in region (limited to birds or mosquitoes).

Level III – Moderate WNV epizootic activity in mosquitoes and birds with initial evidence of WNV in a horse or human.

Level IV – WNV epizootic activity suggesting high risk of human infection (i.e., high number of dead birds and/or positive bird densities, high mosquito infection rates). Confirmed human or horse case.

Level V – Multiple human cases of WNV and conditions favoring further transmission to humans.

Action Plans

All mosquito surveillance and mosquito control noted below is to be performed on public property only.

Level Ia Action Plan - Winter weather; no adult mosquito activity present.***Mosquito Surveillance***

Use maps, GIS and windshield surveys to identify flood prone areas and other potential mosquito breeding locations.

Identify mosquito habitat on City of Lynchburg properties.

Analyze previous years' citizen complaints and surveillance data to help determine future target locations for surveillance activities.

Mosquito Control

Identify where source reduction activities could be applied, if resources are available.

Continue to enforce Chapter 26-2 of the Nuisance Ordinance.

Public Education/ Communication

Train City of Lynchburg employees, as applicable, on West Nile Virus prevention and control.

Set up service request system for citizens to report dead birds on public property, mosquito breeding habitat, and mosquito complaints on public and private property.

Plan the public education campaign on West Nile Virus.

Provide public information releases on revisions to the West Nile Virus Control Plan.

Other

Review and revise the West Nile Virus Plan.

Action Plans continued.

Level Ib Action Plan - Mosquito breeding season, adult mosquito activity present, no current evidence of WNV epizootic activity.

Mosquito Surveillance

Identify mosquito-breeding sites and provide larval and adult surveillance for identified habitat and for citizen complaints.

Use Respond software system to track and assign Citizen complaints.

Use GIS grid map of the City to track surveillance data.

Mosquito Control

Continue to implement source reduction where feasible by pulling ditches, eliminating low spots, etc. on City of Lynchburg properties.

Conduct larval control in identified habitats where source reduction is not feasible.

Continue to enforce Chapter 26-2 of the Nuisance Ordinance.

Develop a request for proposal for a contractor and/ or consultant to provide future surveillance and mosquito control needs.

Identify a contractor to assist with source reduction implementation, if needed.

Public Education/ Communication

Implement an education plan to promote citizen elimination of container breeding habitats on their property.

Send private detention pond owners a letter reminding them to maintain their detention pond per the Retention Pond Agreement.

Other

Seek Grant funding.

Additional Resources

Wage Employee	\$6000
Uniforms	\$134
Other Supplies	\$3321
Equipment	\$700
Pesticides	\$1979
Total	\$12,134

Action Plans continued.

Level II Action Plan - Mosquito larvae and adults present, initial evidence of WNV epizootic activity in the City (limited to birds or mosquitoes).

Mosquito Surveillance

Conduct regularly scheduled (weekly) adult and larval investigative surveillance.

Conduct larval and adult mosquito surveillance on citizen complaints identifying mosquito breeding habitat or adult mosquito population. Identify neighborhoods where container breeding mosquitoes are a problem.

Use Respond software system to track and assign Citizen complaints.

Use GIS grid map of the City to track surveillance data.

Mosquito Control

Continue and enhance source reduction.

Conduct programs for larval controls in key mosquito breeding habitats.

Continue to enforce Chapter 26-2 of the Nuisance Ordinance.

Public Education/ Communication

Continue and enhance educational programs.

Other

Activate a West Nile Virus Task Force that would assist the City in determining the appropriate response to confirmed levels of West Nile virus activity.

Additional Resources

No additional resources needed.

Action Plans continued.

Level III Action Plan- Moderate WNV epizootic activity in mosquitoes and birds with initial evidence of WNV in a horse or human infected in the City.

Mosquito Surveillance

Increase larval and adult mosquito surveillance in identified areas having West Nile Virus epizootic activity.

Conduct larval and adult mosquito surveillance on citizen complaints identifying mosquito breeding habitat or adult mosquito population.

Use Respond software system to track and assign Citizen complaints.

Use GIS grid map of the City to track surveillance data.

Mosquito Control

Enhance source reduction and larvicide control programs.

Continue to enforce Chapter 26-2 of the Nuisance Ordinance.

Public Education/ Communication

Enhance public education campaign.

Other

Hire a consultant to assist the City in planning an emergency control program to be ready if conditions exist where such operations are needed.

Develop a City- wide Integrated Adult Mosquito Control Plan to include a draft Standing Water Ordinance, if needed.

Seek grant funding.

West Nile Virus Task Force continues to meet as needed.

Additional Resources

Consultant /Contractor: Funding level unknown

Action Plans continued.

Level IV Action Plan- WNV epizootic activity suggesting high risk of human infection (i.e., high number of dead birds and/or positive bird densities, high mosquito infection rates). Confirmed human or horse case in the City.

Mosquito Surveillance

Continue and increase surveillance programs in areas of potential human risk.

Use Respond software system to track and assign Citizen complaints.

Use GIS grid map of the City to track surveillance data.

Mosquito Control

Enhance source reduction and larval control programs.

Implement integrated adult mosquito control (spraying) where surveillance indicates high mosquito infection rates.

Approve Standing Water Ordinance.

Public Education/ Communication

Enhance public education campaign

Other

West Nile Virus Control Task Force continues to meet as needed.

Seek grant funding.

Additional Resources

Consultant/ Contractor: Funding level unknown

Level V Action Plan - Multiple human cases of WNV and conditions favoring further transmission to humans.

Mosquito Control

Implement City- wide Integrated Adult Mosquito Control Plan.

Implement and enforce Standing Water Ordinance.

If outbreak is widespread and covers multiple jurisdictions, consider conducting a regional approach to mosquito control.

Other

Provide assistance to the Lynchburg Health Department.

Implement Emergency Control Plan.

Seek grant funding.

Additional Resources

Consultant/ Contractor: Funding level unknown